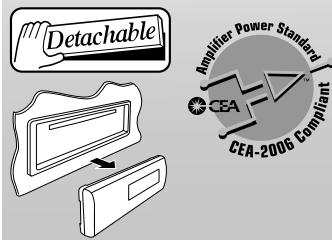


JVC

KD-R218

CD RECEIVER : INSTRUCTIONS/INSTALLATION



COMPACT
DIGITAL AUDIO
TEXT
MP3
WMA

1009DTSMDTJEIN
EN
© 2009 Victor Company of Japan, Limited

GET0622-001A
[J]

Thank you for purchasing a JVC product.
Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

For customer Use:

Enter below the Model No. and Serial No. which are located on the top or bottom of the cabinet. Retain this information for future reference.

Model No.

Serial No.

Canceling the display demonstration

1 Turn on the power.



2 [Hold]
(Initial setting)

3

4 Select <DEMO OFF>.



5 Finish the procedure.



Setting the clock

1 Turn on the power.



2 [Hold]
(Initial setting)

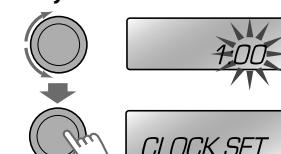
3 Select <CLOCK>.

4 Select <CLOCK SET>.

5 Adjust the hour.



6 Adjust the minute.

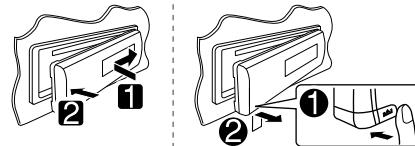


7 Finish the procedure.



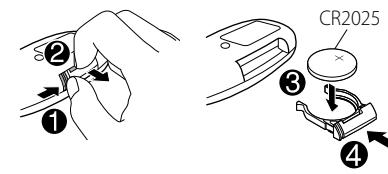
Preparations

How to attach/detach the control panel



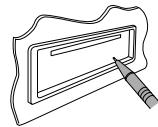
If the effectiveness of the remote controller decreases, replace the battery.

Replacing the lithium coin battery



For USA-California Only:
This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material—special handling may apply.
See www.dtsc.ca.gov/hazardouswaste/perchlorate

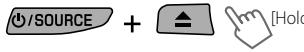
How to reset your unit



Reset the unit after installation is completed.

• Your preset adjustments will also be erased.

How to forcibly eject a disc



• You can forcibly eject the loaded disc even if the disc is locked. To lock/unlock the disc, see page 2.
• Be careful not to drop the disc when it ejects.
• If this does not work, reset your unit.

Caution:

- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.
- Battery shall not be exposed to excessive heat such as sunshine, fire, or the like.

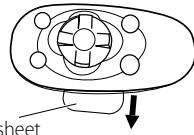
Warning (about battery handling)

To prevent accidents and damage:

- Do not install any battery other than CR2025 or its equivalent.
- Store out of reach of children.
- Do not recharge, short, or dismantle.
- Do not dispose of in fire.
- Do not carry around with other metallic materials.
- Wrap the battery with tape and insulate when throwing away or saving it.

Preparing the remote controller (RM-RK50)

When you use the remote controller for the first time, pull out the insulation sheet.



INFORMATION (For U.S.A.)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution:

Changes or modifications not approved by JVC could void the user's authority to operate the equipment.

IMPORTANT FOR LASER PRODUCTS

1. CLASS 1 LASER PRODUCT

2. CAUTION: Do not open the top cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.

3. CAUTION: (For U.S.A.) Visible and/or invisible class II laser radiation when open. Do not stare into beam.
(For Canada) Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments.

4. REPRODUCTION OF LABEL: CAUTION LABEL, PLACED OUTSIDE THE UNIT.



[European Union only]

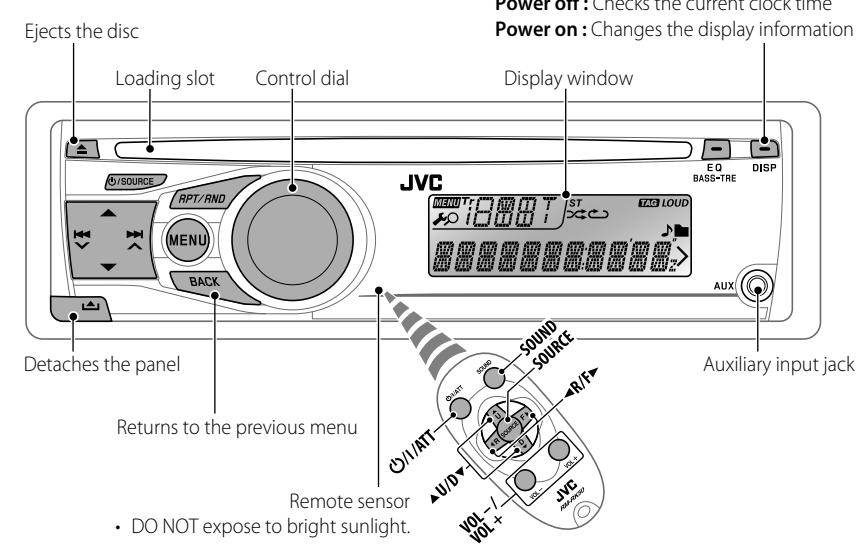
For safety...

- Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operations.

Temperature inside the car...

If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.

Basic operations



When you press or hold the following button(s)...

Main unit	Remote controller	General operation
		Turns on. • When the power is on, pressing O/I/ATT on the remote controller also mutes the sound or pauses. Press O/I/ATT again to cancel muting or resume playback.
		Turns off if pressed and held.
		Selects the available sources (if the power is turned on). • If the source is ready, playback also starts.
	—	Adjusts the volume level.
	—	Selects items.
		• Mutes the sound while listening to a source. If the source is "CD," playback pauses. Press the control dial again to cancel muting or resume playback. • Confirms selection.
	—	Selects the sound mode. • Enters tone level adjustment directly (see page 2) if pressed and held EQ BASS-TRE on the main unit.
	—	Enters playback mode menu directly (see page 2).

Listening to the radio



Manual search



"M" flashes, then press the button repeatedly.

When an FM stereo broadcast is hard to receive



⇒ <TUNER> ⇒ <MONO> ⇒ <MONO ON>
Reception improves, but stereo effect will be lost.

To restore the stereo effect, repeat the same procedure to select <MONO OFF>.

Automatic presetting (FM)— SSM (Strong-station Sequential Memory)

You can preset up to 18 stations for FM.

While listening to a station...



⇒ <TUNER> ⇒ <SSM> ⇒ <SSM 01 – 06> /
<SSM 07 – 12> / <SSM 13 – 18>
'SSM' flashes and local stations with the strongest signals are searched and stored automatically.

To preset another 6 stations, repeat the above procedure by selecting one of the other 6 SSM setting ranges.

Manual presetting (FM/AM)

You can preset up to 18 stations for FM and 6 stations for AM.

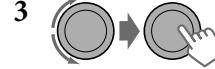
Ex.: Storing FM station of 92.50 MHz into preset number "04."



⇒ "92.50MHz"



"PRESET MODE" flashes.



⇒ Selects preset number "04."
"P04" flashes and "MEMORY" appears.

Listening to the disc



All tracks will be played repeatedly until you change the source or eject the disc.

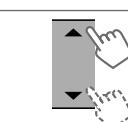
Stopping playback and ejecting the disc

"NO DISC" appears.
Press SOURCE to listen to another playback source.

Prohibiting disc ejection



To cancel the prohibition, repeat the same procedure.



Selects folder of the MP3/WMA

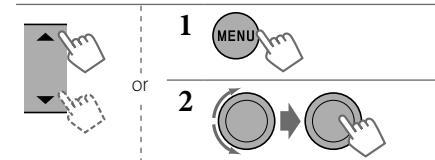


Selects track



Fast-forwards or reverses the track

Selecting a preset station



Assigning title to a station

You can assign titles to 30 station frequencies (FM and AM) using 8 characters (maximum) for each title.



⇒ "FM" or "AM"



5 Repeat steps 3 and 4 until you have finished entering the title.

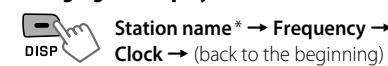


To erase the entire title, press and hold DISP after step 2, then press the control dial.

Available characters

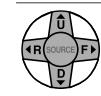
A	B	C	D	E	F	G	H	I
J	K	L	M	N	O	P	Q	R
S	T	U	V	W	X	Y	Z	0
1	2	3	4	5	6	7	8	9
—	/	<	>					Space

Changing the display information



* If no title is assigned to a station, "NO NAME" appears for a few seconds.

Using the remote controller



▲ U/D ▾ : Changes the preset stations

◀ R/F ▶ : Searches for stations

Selecting the playback modes

You can use only one of the following playback modes at a time.



REPEAT

TRACK RPT : Repeats current track

FOLDER RPT : Repeats current folder

RANDOM

FOLDER RND : Randomly plays all tracks of current folder, then tracks of next folders

ALL RND : Randomly plays all tracks

To cancel repeat play or random play, select "RPT OFF" or "RND OFF."

Caution on volume setting:

Discs produce very little noise compared with other sources. Lower the volume before playing a disc to avoid damaging the speakers by the sudden increase of the output level.

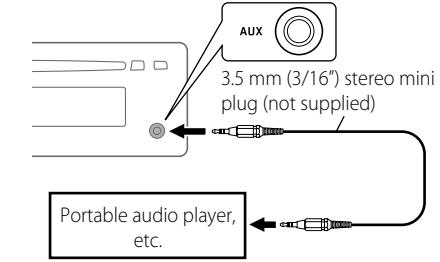
Changing the display information



Disc title/Album name/performer (folder name)*
→ Track title (file name)* → Current track number with the elapsed playing time → Current track number with the clock time → (back to the beginning)

* If the current disc is an audio CD, "NO NAME" appears.
If an MP3/WMA file does not have Tag information or <TAG DISPLAY> is set to <TAG OFF>, folder name and file name appear.

Listening to the external components



Selecting a preset sound mode

You can select a preset sound mode suitable for the music genre.



FLAT → NATURAL → DYNAMIC →
VOCAL BOOST → BASS BOOST →
USER → (back to the beginning)



⇒ <PRO EQ> ⇒ <BASS> / <MIDDLE> / <TREBLE>



Adjust the sound elements of the selected tone.

BASS Frequency: 60 Hz, 80 Hz, 100 Hz, 200 Hz
Level: -06 to +06
Q: Q1.0, Q1.25, Q1.5, Q2.0

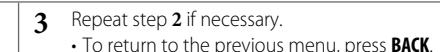
MIDDLE Frequency: 0.5 kHz, 1.0 kHz, 1.5 kHz, 2.5 kHz
Level: -06 to +06
Q: Q0.75, Q1.0, Q1.25

TREBLE Frequency: 10.0 kHz, 12.5 kHz, 15.0 kHz, 17.5 kHz
Level: -06 to +06
Q: Q FIX

4 Repeat steps 2 and 3 to adjust other tones.
The adjustments made will be stored automatically in "USER."

The current sound mode changes to "USER" automatically.

Menu operations



Category	Menu item	Selectable setting, [Initial: <u>Underlined</u>]
DEMO	DEMO	<ul style="list-style-type: none">• DEMO ON• DEMO OFF : Display demonstration will be activated automatically if no operation is done for about 20 seconds. : Cancels.
CLOCK	CLOCK SET	[1:00] : Adjust the hour, then the minute.
PRO EQ	BASS	— : For settings, see "Storing your own sound mode."
	MIDDLE	—
	TREBLE	—
DIMMER		<ul style="list-style-type: none">• DIMMER ON : Dims the display and button illumination.• DIMMER OFF : Cancels.
DISPLAY	SCROLL *1	<ul style="list-style-type: none">• SCROLL ONCE : Scrolls the displayed information once.• SCROLL AUTO : Repeats scrolling (at 5-second intervals).• SCROLL OFF : Cancels.
	TAG DISPLAY	Pressing DISP for more than one second can scroll the display regardless of the setting. <ul style="list-style-type: none">• TAG ON : Shows the Tag information while playing MP3/WMA tracks.• TAG OFF : Cancels.

*1 Some characters or symbols will not be shown correctly (or will be blanked) on the display.

Category	Menu item	Selectable setting, [Initial: Underlined]
TUNER	SSM*2	<ul style="list-style-type: none"> SSM 01 – 06 SSM 07 – 12 SSM 13 – 18 : For settings, see "Automatic presetting (FM)—SSM (Strong-station Sequential Memory)" on page 2.
	AREA	<ul style="list-style-type: none"> AREA US AREA EU AREA SA : When using in North/Central/South America. AM/FM intervals are set to 10 kHz/200 kHz.
		<ul style="list-style-type: none"> AREA EU AREA SA : When using in any other areas. AM/FM intervals are set to 9 kHz/50 kHz (100 kHz during auto search).
		<ul style="list-style-type: none"> AREA SA : When using in South American countries where FM interval is 100 kHz. AM interval is set to 10 kHz.
	MONO*2	<ul style="list-style-type: none"> MONO ON MONO OFF : Activate monaural mode to improve FM reception, but stereo effect will be lost.
		<ul style="list-style-type: none"> MONO OFF : Restore the stereo effect.
	IF BAND	<ul style="list-style-type: none"> AUTO WIDE : Increases the tuner selectivity to reduce interference noises between adjacent stations. (Stereo effect may be lost).
		<ul style="list-style-type: none"> WIDE : Subject to interference noises from adjacent stations, but sound quality will not be degraded and the stereo effect will remain.
	FADER*3	R06 – F06 [00] : Adjust the front and rear speaker output balance.
	BALANCE*4	L06 – R06 [00] : Adjust the left and right speaker output balance.
AUDIO	LOUD	<ul style="list-style-type: none"> LOUD ON LOUD OFF : Boost low and high frequencies to produce a well-balanced sound at a low volume level.
		<ul style="list-style-type: none"> LOUD OFF : Cancels.
	AUX ADJUST*5	AUX ADJ 00 – AUX ADJ 05 : Adjust the auxiliary input level to avoid the sudden increase of the output level when changing the source to the external component connected to the AUX input jack on the control panel.
	L/O MODE	<ul style="list-style-type: none"> SUB.W REAR : Select if the REAR LINE OUT terminals are used for connecting a subwoofer (through an external amplifier).
		<ul style="list-style-type: none"> REAR : Select if the REAR LINE OUT terminals are used for connecting the speakers (through an external amplifier).
	SUB.W FREQ*6	<ul style="list-style-type: none"> LOW MID HIGH : Frequencies lower than 72 Hz are sent to the subwoofer.
		<ul style="list-style-type: none"> MID HIGH : Frequencies lower than 111 Hz are sent to the subwoofer.
		<ul style="list-style-type: none"> HIGH : Frequencies lower than 157 Hz are sent to the subwoofer.
	SUB.W LEVEL*6	SUB.W 00 – SUB.W 08 [SUB.W 04] : Adjust the subwoofer output level.
	BEEP	<ul style="list-style-type: none"> BEEP ON BEEP OFF : Activates the keypress tone.
SRC SELECT	AMP GAIN*7	<ul style="list-style-type: none"> LOW POWER HIGH POWER : VOLUME 00 – VOLUME 30 (Select if the maximum power of each speaker is less than 50 W to prevent damaging the speakers.)
		<ul style="list-style-type: none"> HIGH POWER : VOLUME 00 – VOLUME 50
SRC SELECT	AM*8	<ul style="list-style-type: none"> AM ON AM OFF : Enable "AM" in source selection.
		<ul style="list-style-type: none"> AM OFF : Disable "AM" in source selection.
SRC SELECT	AUX IN*9	<ul style="list-style-type: none"> AUX ON AUX OFF : Enable "AUX IN" in source selection.
		<ul style="list-style-type: none"> AUX OFF : Disable "AUX IN" in source selection.

*2 Displayed only when the source is "FM."

*3 If you are using a two-speaker system, set the fader level to "00."

*4 This adjustment will not affect the subwoofer output.

*5 Displayed only when <AUX IN> is set to <AUX ON>.

*6 Displayed only when <L/O MODE> is set to <SUB.W>.

*7 The volume level automatically changes to "VOLUME 30" if you change to <LOW POWER> with the volume level set higher than "VOLUME 30."

*8 Displayed only when any source other than "AM" is selected.

*9 Displayed only when any source other than "AUX IN" is selected.

Installation

This unit is designed to operate on **12 V DC, NEGATIVE ground electrical systems**. If your vehicle does not have this system, a voltage inverter is required, which can be purchased at JVC car audio dealers.

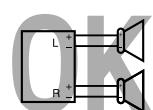
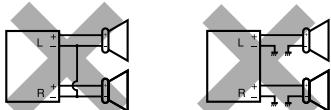
Warnings

- To prevent short circuits:
 - Disconnect the battery's negative terminal and make all electrical connections before installing the unit.
 - Cover the terminals of the UNUSED leads with insulating tape.
- Be sure to ground this unit to the car's chassis again after installation.
- Replace the fuse with one of the specified rating.
- Connect speakers with a maximum power of more than 50 W (impedance of 4 Ω to 8 Ω). Otherwise, change the <AMP GAIN> setting. (See "Menu operations.")
- The heat sink becomes very hot after use. Be careful not to touch it when removing this unit.



PRECAUTIONS on power supply and speaker connections

- DO NOT connect the speaker leads of the power cord to the car battery; otherwise, the unit will be seriously damaged.
- BEFORE connecting the speaker leads of the power cord to the speakers, check the speaker wiring in your car.



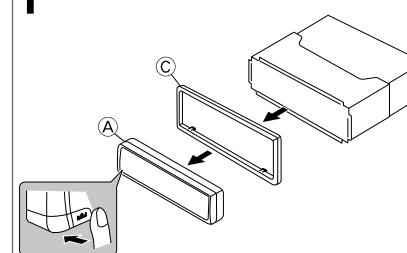
Parts List

(A) Control panel.....	1	(D) Power cord.....	1
(B) Sleeve.....	1	(E) Handles.....	2
(C) Trim plate.....	1		

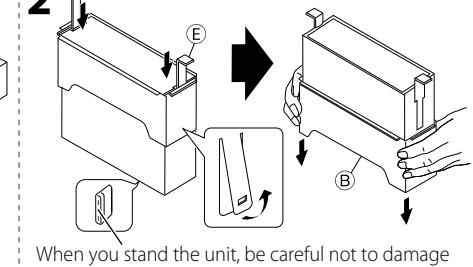
The following illustration shows a typical installation. If you have any questions or require information regarding installation kits, consult your JVC car audio dealer or a company supplying kits.

In-dash mounting

1

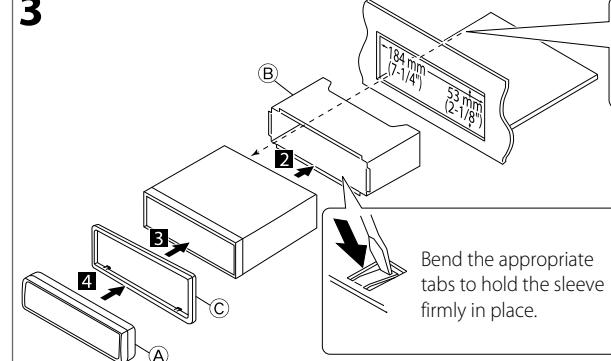


2

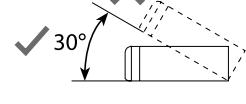


When you stand the unit, be careful not to damage the fuse on the rear.

3



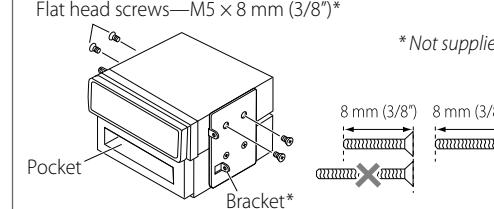
Install the unit at an angle of less than 30°.



When installing the unit without using the sleeve

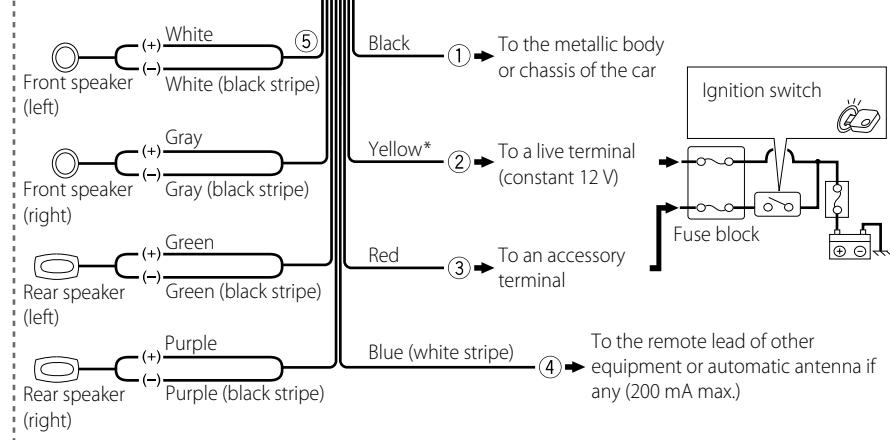
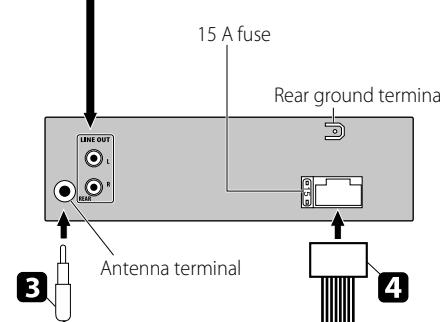
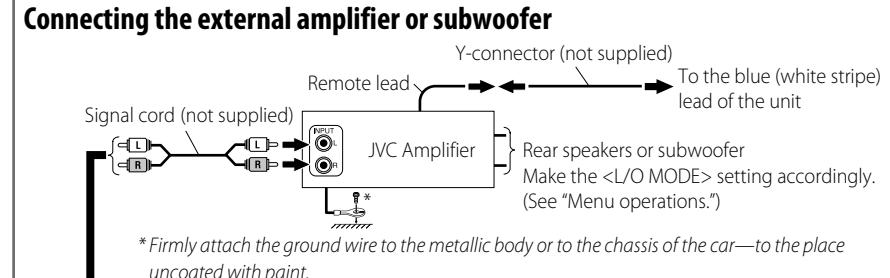
Removing the unit

Release the rear section first...



Electrical connections

Connecting the external amplifier or subwoofer



* Before checking the operation of this unit prior to installation, this lead must be connected; otherwise, the power cannot be turned on.

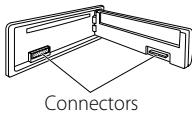
Troubleshooting

	Symptom	Remedy/Cause
General	Sound cannot be heard from the speakers.	<ul style="list-style-type: none"> Adjust the volume to the optimum level. Make sure the unit is not muted/paused. Check the cords and connections.
	"PROTECT" appears on the display and no operations can be done.	<p>Check to be sure the terminals of the speaker leads are covered with insulating tape properly, then reset the unit. If "PROTECT" does not disappear, consult your JVC car audio dealer or a company supplying kits.</p>
	This unit does not work at all.	Reset the unit. (See page 1.)
FM/AM	"AUX IN" cannot be selected.	Check the <SRC SELECT> → <AUX IN> setting. (See "Menu operations" on page 3.)
	SSM automatic presetting does not work.	Store stations manually.
	Static noise while listening to the radio.	Connect the antenna firmly.
Disc playback	"AM" cannot be selected.	Check the <SRC SELECT> → <AM> setting. (See "Menu operations" on page 3.)
	Disc cannot be played back.	<ul style="list-style-type: none"> CD-R/CD-RW cannot be played back. Tracks on the CD-R/CD-RW cannot be skipped.
	Disc can be neither played back nor ejected.	<ul style="list-style-type: none"> Insert the disc correctly. Unlock the disc. Eject the disc forcibly.
MP3/WMA playback	Disc sound is sometimes interrupted.	<ul style="list-style-type: none"> Stop playback while driving on rough roads. Change the disc. Check the cords and connections.
	"NO DISC" appears on the display.	Insert a playable disc into the loading slot.
	"PLEASE" and "EJECT" appear alternately on the display.	Press ▲, then insert a disc correctly.
Installation/connection	Disc cannot be played back.	<ul style="list-style-type: none"> Use a disc with MP3/WMA tracks recorded in a format compliant with ISO 9660 Level 1, Level 2, Romeo, or Joliet. Add the extension code <.mp3> or <.wma> to the file names.
	Noise is generated.	Skip to another track or change the disc. (Do not add the extension code <.mp3> or <.wma> to non-MP3 or WMA tracks.)
	A longer readout time is required ("READING" keeps flashing on the display).	Do not use too many hierarchical levels and folders.
Maintenance	Tracks are not played back in the order you have intended.	Playback order is determined when the files are recorded.
	The elapsed playing time is not correct.	This sometimes occurs during playback. This is caused by how the tracks are recorded on the disc.
	The correct characters are not displayed (e.g. album name).	This unit can only display letters (upper case), numbers, and a limited number of symbols.
Maintenance	The fuse blows.	Connect the red and black leads correctly.
	Power cannot be turned on.	Check to make sure the yellow lead is connected.
	No sound from the speakers.	Check to make sure the speaker output lead is not shortcircuited.
Maintenance	Sound is distorted.	<ul style="list-style-type: none"> Check to make sure the speaker output lead is grounded. Check to make sure the "-" terminals of L and R speakers are grounded in common.
	Noise interfere with sounds.	Check to make sure the rear ground terminal connected to the car's chassis is using shorter and thicker cords.
	This unit becomes hot.	<ul style="list-style-type: none"> Check to make sure the speaker output lead is grounded. Check to make sure the "-" terminals of L and R speakers are grounded in common.
Maintenance	This unit does not work at all.	Reset the unit. (See page 1.)

Maintenance

How to clean the connectors

Wipe the connectors with a cotton swab or cloth moistened with alcohol.



Connectors

Moisture condensation

Moisture may condense on the lens inside the unit. Eject the disc and leave the unit turned on for a few hours until the moisture has evaporated.

To keep discs clean

Wipe in a straight line from center of disc to edge. Do not use liquid cleaners, thinners, or benzene.



To play new discs

Remove any rough areas from the inner and outer edges of the disc.



Do not use the following discs:

- Single CD—8 cm (3-3/16") disc
- Warped disc
- Disc with sticker and sticker residue
- Disc with stick-on label
- Unusual shape disc
- C-thru Disc (semi-transparent disc)
- Disc with transparent or semi-transparent parts on its recording area

**Having TROUBLE with operation?
Please reset your unit
Still having trouble??**

Call 1-800-252-5722 (USA ONLY)
http://www.jvc.com

More about this unit

Basic operations

- If you turn off the power while listening to a track, playback will start from where it had been stopped previously next time you turn on the power.
- If no operation is done for about 60 seconds after pressing **MENU** button, the operation will be canceled.

Tuner operations

- During SSM search...
 - All previously stored stations are erased and the stations are stored anew.
 - When SSM is over, the station stored in the lowest preset number will be automatically tuned in.
- If you try to assign titles to more than 30 station frequencies, "NAME FULL" appears. Delete unwanted titles before assignment.

Disc operations

Caution for DualDisc playback

- The Non-DVD side of a "DualDisc" does not comply with the "Compact Disc Digital Audio" standard. Therefore, the use of Non-DVD side of a DualDisc on this product may not be recommended.

General

- This unit has been designed to reproduce CDs/CD Texts, and CD-Rs (Recordable)/CD-RWs (Rewritable) in audio CD (CD-DA) and MP3/WMA formats.
- If you change the source while listening to a disc, playback stops. Next time you select "CD" as the playback source, playback will start from where it had been stopped previously.
- If the ejected disc is not removed within 15 seconds, the disc is automatically inserted again into the loading slot to protect it from dust.

Playing a CD-R or CD-RW

- Use only "finalized" CD-Rs or CD-RWs.
- This unit can play back multi-session discs; however, unclosed sessions will be skipped while playing.
- Some CD-Rs or CD-RWs may not be played back on this unit:
 - Discs are dirty or scratched.
 - Moisture condensation has occurred on the lens inside the unit.
 - The pickup lens inside the unit is dirty.
 - The files on the CD-R/CD-RW are written using the "Packet Write" method.
 - There are improper recording conditions (missing data, etc.) or media conditions (stained, scratched, warped, etc.).

Specifications

AUDIO AMPLIFIER SECTION

Power Output:

20 W RMS × 4 Channels at 4 Ω and
≤ 1% THD+N



Signal-to-Noise Ratio:

80 dB (reference: 1 W into 4 Ω)

Load Impedance:

4 Ω (4 Ω to 8 Ω allowance)

Tone Control Range:

Bass:	±12 dB (60 Hz, 80 Hz, 100 Hz, 200 Hz)
	Q1.0, Q1.25, Q1.5, Q2.0
Middle:	±12 dB (0.5 kHz, 1.0 kHz, 1.5 kHz, 2.5 kHz)
	Q0.75, Q1.0, Q1.25
Treble:	±12 dB (10.0 kHz, 12.5 kHz, 15.0 kHz, 17.5 kHz)
	Q (Fixed)

Frequency Response:

40 Hz to 20 000 Hz

Line-Out Level/Impedance:

2.5 V/20 kΩ load (full scale)

Subwoofer-Out Level/Impedance:

2.5 V/20 kΩ load (full scale)

Output Impedance:

1 kΩ

Other Terminal:

AUX (auxiliary) input jack

TUNER SECTION

Frequency Range:

FM: 87.5 MHz to 107.9 MHz

(with channel interval set to 100 kHz or 200 kHz)

87.5 MHz to 108.0 MHz

(with channel interval set to 50 kHz)

AM: 530 kHz to 1 710 kHz

(with channel interval set to 10 kHz)

531 kHz to 1 602 kHz

(with channel interval set to 9 kHz)

[FM Tuner]

Usable Sensitivity: 9.3 dBf (0.8 μV/75 Ω)

50 dB Quieting Sensitivity: 16.3 dBf (1.8 μV/75 Ω)

Alternate Channel Selectivity (400 kHz): 65 dB

Frequency Response: 40 Hz to 15 000 Hz

Stereo Separation: 40 dB

[AM Tuner]

Sensitivity/Selectivity: 20 μV/40 dB

- CD-RWs may require a longer readout time since the reflectance of CD-RWs is lower than that of regular CDs.

Playing an MP3/WMA disc

- This unit can play back MP3/WMA files with the extension code <.mp3> or <.wma> (regardless of the letter case—upper/lower).
- This unit can show the names of albums, artists (performer), and tag (Version 1.0, 1.1, 2.2, 2.3, or 2.4) for MP3 files and for WMA files.
- This unit can display only one-byte characters. No other characters can be correctly displayed.
- This unit can play back MP3/WMA files meeting the conditions below:
 - Bit rate: 8 kbps — 320 kbps
 - Sampling frequency: 48 kHz, 44.1 kHz, 32 kHz (for MPEG-1)
24 kHz, 22.05 kHz, 16 kHz (for MPEG-2)
 - Disc format: ISO 9660 Level 1 / Level 2, Romeo, Joliet, Windows long file name
- The maximum number of characters for file/folder names vary depending on the disc format used (includes 4 extension characters—<.mp3> or <.wma>).
 - ISO 9660 Level 1: up to 12 characters; ISO 9660 Level 2: up to 31 characters; Romeo: up to 128 characters; Joliet: up to 64 characters; Windows long file name: up to 128 characters
- This unit can recognize a total of 512 files, 255 folders, and 8 hierarchical levels.
- This unit can play back files recorded in VBR (variable bit rate).

Files recorded in VBR have a discrepancy in the elapsed time display, and do not show the actual elapsed time. In particular, this difference becomes noticeable after performing the search function.
- This unit cannot play back the following files:
 - MP3 files: encoded in MP3i and MP3 PRO format; an inappropriate format; layer 1/2.
 - WMA files: encoded in lossless, professional, and voice format; not based upon Windows Media® Audio; copy-protected with DRM.
 - Files which have data such as AIFF, ATRAC3, etc.
- The search function works but search speed is not constant.

Microsoft and Windows Media are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

CD PLAYER SECTION

Type:

Compact disc player

Signal Detection System:

Non-contact optical pickup (semiconductor laser)

Number of channels:

2 channels (stereo)

Frequency Response:

5 Hz to 20 000 Hz

Dynamic Range:

93 dB

Signal-to-Noise Ratio:

98 dB

Wow and Flutter:

Less than measurable limit

MP3 Decoding Format:

MPEG1/2 Audio Layer 3

WMA (Windows Media® Audio) Decoding Format:

Max. Bit Rate: 320 kbps

Mass (approx.):

Max. Bit Rate: 192 kbps

GENERAL

Power Requirement:

Operating Voltage: DC 14.4 V (11 V to 16 V allowance)

Grounding System:

Negative ground

Allowable Operating Temperature:

0°C to +40°C (32°F to 104°F)

Dimensions (W × H × D):

Installation Size (approx.):
182 mm × 52 mm × 160 mm
(7-3/16" × 2-1/16" × 6-5/16")

Panel Size (approx.):

188 mm × 58 mm × 6 mm

(7-7/16" × 2-5/16" × 1/4")

Mass (approx.):

1.3 kg (2.9 lbs) (excluding accessories)

Design and specifications are subject to change without notice.

If a kit is necessary for your car, consult your telephone directory for the nearest car audio speciality shop.